

*Posidonius' Linguistic Naturalism and Its
Philosophical Pedigree*

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The importance of Posidonius of Apamea (c. 135–c. 50 BC) for the Roman intellectual life of the late Republic and the Empire (especially in its first two centuries) can hardly be overestimated. His philosophical and scientific work, of which we now have only fragments, ranged from the traditional fields of Stoicism – natural philosophy, logic, ethics (including moral psychology) – to the painstaking investigation of disciplines which either were considered by the earlier Stoics only in an insignificant way (meteorology, astronomy), or were completely beyond their interests (history, physical, mathematical, and ethnic geography). This encyclopedic approach won for him already during his lifetime and soon after his death the authority of the *maximus omnium Stoicorum* (Cic. *Hort.* fr. 50 Grilli = *test.* 33 E.–K.),¹ among both professional philosophers and Roman *dilettanti* like Pompey. The influence of his innovative work, and the polemical reaction to it (the two often going hand in hand) is found in later centuries in moral philosophy and psychology (Seneca, Galen), natural philosophy, astronomy, and mathematics (Geminus, Seneca, Pliny the Elder, Cleomedes), as well as history and geography, both mathematical and physical (Caesar, Diodorus of Sicily, Strabo).

In view of this considerable impact in different fields, Posidonius is an appropriate starting point for a discussion of the subject of linguistic naturalism at Rome, since Roman thinkers and writers were exposed to traditional Greek theories on linguistic naturalism through his work. As will be seen, Posidonius' contribution to Stoic naturalism was original, but is obscure to us in many respects, since it did not win considerable popularity.

Although Posidonius' texts were excerpted primarily because of his astonishing polymathy, the later evidence provides us with a glance at

¹ References to evidence for Posidonius are given according to the now standard edition of Edelstein and Kidd 1989; references to other collections (Jacoby = *FGrH*, Theiler = *Th.*) only when a given piece is omitted by Edelstein and Kidd or when it has been presented differently by Jacoby or Theiler.

the scope and the typical features of his bold attempt to integrate the achievements of science and scholarship into the system of Stoic philosophy. The excessive emphasis typically placed by the outstanding earlier scholars of Posidonius (K. Reinhardt, M. Pohlenz) on the heterodoxy of the Apamean with respect to particular doctrines has since given way to a more securely evidenced picture of him as a philosopher who modified some doctrines of his predecessors, and filled in the gaps, but aimed at the conservation and endorsement of the fundamental principles of the Stoic system.² The main novelty of Posidonius' achievement is now seen not as the radical revision of Stoic philosophical orthodoxy, but rather as an attempt to build a many-branched scientific foundation for the earlier Stoic creed. Along with the investigation of particular scientific problems, inspired by personal interests which were not typical of the earlier Stoics, Posidonius aimed at constructing a system of philosophical and scientific knowledge which would provide a hierarchy of causal explanations for empirical facts,³ and thus enhance the traditional Stoic understanding of the universe as a set of all-penetrating chains of causes.

One small piece of Posidonius' teaching which I will revisit in this paper is his attempt to complement the linguistic naturalism of the Stoics with an explanation, along naturalist lines, of the differences between languages, in order to render Stoic naturalism immune to what was often considered to be one of the main challenges to the naturalist stance. It illustrates well, in spite of the meagre evidence for this part of the Posidonian theory, both his fidelity to the main tenets of Stoic philosophy (of which linguistic naturalism was an essential component at least since Chrysippus), and his readiness to complement them with the results of up-to-date scientific research, together of course with his own original and bold hypotheses. Another important aspect of Posidonius' approach, namely his keenness to offer solutions to the problems of his predecessors, seems also to be visible in our case, although the discussion I try to reconstruct remains necessarily hypothetical.

The evidence for the views of Posidonius' Stoic predecessors on the origin of language is meagre.⁴ The Stoics' notorious commitment to etymology

² For a survey of earlier scholarship see Reinhardt 1953; the general contemporary view is best presented by Kidd 1988 (see also his portrait of Posidonius as a thinker in Kidd 1999).

³ The theoretical (although limited) exposition of this standpoint is Simp. *in Ph.* pp. 291.21–292.31 Diels (from Geminus' *Epitome* of Posidonius' *Meteorologika*) = fr. 18 E.–K.; for discussion of this difficult text, see Kidd 1978 and Kidd 1988, Algra 1991, White 2007, Verde 2016.

⁴ The most substantial studies on the Stoic view on the origin of language are Barwick 1957a: 29–79 (a pioneering work which is, however, now in need of a substantial revision), and, more recently, Atherton 1993: 68, 92–130, 136–8, 146, 154–9, 243–4, 429, 489, 495, Tieleman 1996: 196–218, Allen 2005, Long 2005; cf. also the brief notice in Pohlenz 1972 (originally 1948): 1.40–1, 2.23. There is little, if any, evidence, as these scholars confess, for the details of the process.

goes back minimally to Chrysippus. A considerable number of his etymologies are preserved; they seek, for the most part, to decode quasi-philosophical meaning which corresponds to Chrysippus' own view of the subject in question.⁵ Galen attests that Chrysippus used etymology as an argument in favour of his own philosophical position (Gal. *PHP* 2.2.5 De Lacy = *FDS* 247). As one of the more striking examples, he cites Chrysippus' famous argument that when one pronounces the pronoun *ego* the lower lip at the syllable *e-* moves towards the chest, thus proving that the heart, not the brain, is the real 'I', i.e. the ruling part of the soul; the next syllable, *-go*, is pronounced in full conformity with the same symbolic meaning, contrary to the pronoun *ekeinos*, in which the syllable *-kei-* modifies the meaning of *-e-*, transferring its pointing to 'I' from the speaker to another person, by adding the notion of distance (Gal. *PHP* 2.2.9–11 De Lacy = *SVF* 2.895). This example is remarkable because it shows that Chrysippus was already attempting to analyze the simple and, admittedly, most primitive words into their elements (see further on this point Garcea, in this volume). As Galen notices (*ibid.* 2.2.13), Chrysippus' remark on *ekeinos* in this context was provoked by the obvious difficulty that two words with the opposite meanings contain the same element, namely *-e-*. This immediately evokes a famous difficulty in the *Cratylus* (434d): the word *sklerotes*, which on the whole conveys the notion of harshness, contains not only the sounds which are associated with this feature but also *-l-*, which has the opposite symbolic meaning. Chrysippus' solution of the problem is the opposite of that of the interlocutors in the *Cratylus* (435b–d): he does not yield to the admission that there is inevitably some conventional element in words (which are in general appropriate to the features of the things they designate), but attempts instead to maintain that sounds acquire additional symbolic capacities due to their neighbouring elements (*e+go* points to 'this-I', *e+kei* to 'that-I').⁶

Chrysippus' views on how words acquired their phonetic composition, and thus their linguistic meaning, are not known in detail, but it is attested that he referred to the imposition of names when discussing etymology (*SVF* 2.914).⁷ This implies that words for him are the results of intentional

⁵ For examples of the etymologies of the earlier Stoics, for the most part belonging to Chrysippus (they are not included in von Arnim's collection), see *FDS* 650–80 (see also Hülser 1987–1988: xli–xlx on etymologies and their relation to the question of the origin of language). Chrysippus also wrote two treatises devoted to the subject of etymology.

⁶ Cf. Long 2005: 42, who plausibly shows how the etymologies in Aug. *Dial.* This is abbreviated *Dial.* in the *Index Locorum*. 6 may be regarded as a sort of 'improvement' on Socrates' radical naturalism in the *Cratylus*.

⁷ This welcome early evidence is pertinently noticed by Allen 2005: 18–19.

acts of naming, as opposed to the spontaneous acts we find in the Epicurean account.⁸ This is quite expected, and follows the stance laid out in Socrates' speech in the middle part of the *Cratylus*, both in his use of etymology for the decoding of philosophical meanings and, especially, in his attempt to push the search for these meanings back to the primitive words and even to their elements.⁹ On the evidence we have, the early Stoic approach to the principles of language is that of Socrates in the *Cratylus* – the search for ways of proving that a given word is appropriate to a given thing. The assumption which underlies this search is that decoding words by means of etymology, or pointing to the imitative capacities of words, will reveal the rational understanding of the world possessed by those who first created said words.¹⁰ As in the *Cratylus*, this most naturally leads to the conviction that language was created by the imposition of skilfully created words onto things, without going into detail as regards who was responsible, how they arrived at the idea of naming,

⁸ The exposition of Stoic dialectic in Diogenes Laertius contains one further reference to the role it assigns to the imposition of names (7.83 = *SVF* 2.130 = *LS* 31C): Καὶ τοιοῦτοι μὲν ἐν τοῖς λογικοῖς οἱ Στωικοί, ἵνα μάλιστα κρατύνωσι διαλεκτικὸν αἰεὶ εἶναι τὸν σοφόν· πάντα γὰρ τὰ πράγματα διὰ τῆς ἐν λόγοις θεωρίας ὀρθᾶσθαι, ὅσα τε τοῦ φυσικοῦ τόπου τυγχάνει καὶ αὐτὰ πάλιν ὅσα τοῦ ἠθικοῦ (εἰς μὲν γὰρ τὸ λογικὸν τί δεῖ λέγειν) περὶ τε ὀνομάτων ὀρθότητος, ὅπως διέταξαν οἱ νόμοι ἐπὶ τοῖς ἔργοις, οὐκ ἂν ἔχειν εἰπεῖν. δυοῖν δ' οὔσαι συνθεῖσιν ταῖν ὑποπιπτούσαιν τῇ ἀρετῇ, ἣ μὲν τί ἕκαστόν ἐστι τῶν ὄντων σκοπεῖ, ἣ δὲ τί καλεῖται. καὶ ὧδε μὲν αὐτοῖς ἔχει τὸ λογικόν. (The text of T. Dorandi). The text is difficult (the parenthetical sentence is possibly corrupt). Its sense cannot be as *LS* 1.95 put it, that 'the Stoics deny that etymological technique is part of real dialectic' (cf. Long 2005: 48). Against this interpretation is both the general context, the crucial importance of dialectic in view of the tasks the sage has, and the immediately following sentence, not printed in *LS*: virtue embraces the capacities of consideration of what the thing is and of what is its proper name. On the other hand, Tieleman (1996: 197 n. 6) mistakenly denies the value of the passage as evidence for the Stoic theory, because he thinks that it refers to 'a conventional origin of language'. In fact it means that without dialectic the Stoic sage would not be able to make judgements about the 'correctness of names', that is, to judge whether or not names have been correctly assigned by laws to things (Long himself earlier held the view I stand for, see Long 1996b: 88 [104]; *LS* 2.187 signal the change of mind); I do not think that Mansfeld's drastic emendation of the text is necessary (Mansfeld 2000). This has nothing to do with conventional imposition but immediately evokes the famous reasoning in the *Cratylus* (388b–e; 390c–e) that words are imposed on things by 'law' and thus are made by a competent legislator, and that only a dialectician who employs the words for teaching about things may evaluate the work of a legislator, i.e. whether the words are appropriate or not. Although the date of this doxographicum is not clear, it is a confirmation of the 'mainstream' Stoic interest in etymology as a tool of cognition and of its sticking to rational imposition in the question of the origin of language, both in agreement with the *Cratylus* and obviously following Plato's lead. Furthermore, if this understanding of the text is correct, this means that together with Plato's Socrates the Stoics did not ascribe to the ancient creators of names infallible correctness in imposition.

⁹ For Chrysippus' emphasis on the appropriateness of words, which points to naturalism proper and not merely to an occasional reliance on etymology, see Tieleman 1996: 205.

¹⁰ Long (2005: 38–9) cites the evidence of Cornutus *De Natura Deorum* p. 76.2–5 on the ancient creators of the names of gods, who were the philosophers of nature, for what seems to me a correct interpretation of the position of Chrysippus. Long (1996a: 74 n. 34) rightly notices that it is not necessary to see in Cornutus a reflection of Posidonius' teaching.

and how other people were taught to do the same.¹¹ Let us look now at Posidonius' impact.

Posidonius' theory of the origin of language attracted little attention even in the epoch of Pan-Posidonianism, perhaps understandably given the notorious scarcity of the relevant evidence. There were attempts in the time of the Pan-Posidonian *Quellenforschung* to ascribe to Posidonius various passages in Greek and Roman authors on the origin of language, but the credentials for their Posidonian provenance turn out, on scrutiny, to be for the most part rather weak. Thus, Rudberg found in Posidonius, on the basis of such ascriptions, a more considerable emphasis on the role of imposition of names in the origins of language, in contrast to the orthodox Stoic view, but although he was right that the interest in the *process* of the origin of culture and, presumably, of language, was untypical for Posidonius' Stoic predecessors, there is no evidence that Posidonius' real innovation was the emphasis on imposition.¹²

¹¹ In spite of their interest in the phonetic aspects of language (in the cases of Chrysippus and, especially, Diogenes of Babylon), the earlier Stoics only maintain the fundamental opposition of unarticulated animal sounds to articulated human ones, without asking the question of whether this articulation is inherent to human language, or is a cultural acquisition; see Cic. *N. D.* 2.129: the articulatory ability of man, as opposed to animals, is one of the proofs of nature's craft in the process of creation and her providential care of human beings, as in Socrates' argument in Xen. *Mem.* 1.4.12. The argument holds in either case, regardless of whether this ability develops naturally or demands further invention and teaching.

¹² Rudberg's (1918: 56–7, 90–2) reconstruction of Posidonius' theory was based either on passages which were for some reason claimed for Posidonius by earlier scholars, or on those which mention the wise imposers of names: the latter seemed to correspond to Posidonius' specific emphasis on the role of sages in the origin of culture. In fact, not only is the ascription of these pieces to Posidonius dubious, but even the underlying views are sometimes hardly compatible. The passages on the wise imposers of names clearly adapt the influential teaching of Plato's *Cratylus*, and, even if they were adapted by the Stoics, have nothing to commend them as specifically Posidonian. Thus, Cic. *Tusc.* 1.62, which cites the doctrine of the imposer of names ascribed to Pythagoras (*qui primus, quod summae sapientiae Pythagorae usum est, omnibus rebus imposuit nomina* ...; cf. *Tusc.* 5.5), corresponds to the Pythagorean *akousma* (58C 4 DK) for which Cicero provides the earliest known evidence. This *akousma* itself is, in all probability, Plato's teaching under a Pythagorean disguise, since the following notice on the inventor of writing (*aut qui sonos uocis, qui infiniti uidebantur, paucis litterarum notis terminauit*) is a clear reminiscence of Plato's *Philebus* 18b–d. The general context of this notice, the praise of the role of divine wisdom (= philosophy, 1.64) in political and technical discoveries, may go back to Posidonius, as was often supposed (see, most recently, Zago 2012: 242–5); if the praise of the name-giver was also borrowed from Posidonius (this is not certain, but I see no reason to deny this, contrary to Zago 2012: 245, who argues that the whole piece is of a heterogeneous origin), this would be a welcome confirmation that he accepted Plato's and orthodox Stoics' view on the imposition of names, but would add nothing to our knowledge of his specific doctrines. *Rep.* 3.3 (*eademque* [sc. *mens humana*] *cum accepisset homines inconditis uocibus inchoatum quiddam et confusum sonantes, incidit has et distinxit in partes, et ut signa quaedam sic uerba rebus impressit*) is part of the catalogue of inventions of human reason; it was ascribed to Posidonius because of a surface similarity with the *Tusculans* piece. It admits a stage of unarticulated human sounds which are not yet imposed on things, which is not attested for the Stoics (nor for Posidonius); this stage is also not implied in the passage from the *Tusculans* and was ignored by Plato. This view itself is in fact old and is attested from the second half of the fifth

The most reliable and promising piece of evidence for Posidonius' views on the origin of language, which is unfortunately tantalizingly brief, shows unambiguously that his innovation of the earlier Stoic views was a more refined version of naturalism. The evidence is provided by Strabo (2.3.7 = fr. 49.310–63 E.–K.), who in his work sharply criticized but extensively drew on Posidonius' *On the Ocean*, a treatise devoted to the mathematical, physical, and ethnographic geography which contained his theory of the zonal division of the *oikoumene*. Strabo blames Posidonius for contradictions in this theory: after criticizing existing theories of the division of the areas of the *oikoumene* into continents, and proposing instead to divide it into zones which are parallel to the equator (*klimata*), which might explain the differences between the animals, plants, and climates of these zonal areas by their closeness either to the frigid or to the torrid zones, Posidonius then refutes his own argument and praises again the existing division into continents (fr. 49.310–17 E.–K.).¹³ Some additional features of

century BC (see the evidence in Verlinsky 2005); the *De re publica* passage looks like a combination of Pl. *Prt.* 322a with the teaching of *Cratylus*, and might be Cicero's own work, but even if he drew here on a Stoic source, or specifically on Posidonius, the origin of language, again, is depicted in terms of traditional teaching. Manilius' remark on the development of language (1.85 *tunc et lingua suas accepit barbara leges*), often ascribed to Posidonius on the assumption that Manilius' astrological ethnography depends on him (see, most recently, Theiler 1982), refers probably in the vaguer form to the same development as *Rep.* 3.3, and the ascription of it to Posidonius would give the same insignificant effect; but the assumption of a Posidonian provenance for Manilius' ethnographical excursus is itself dubious (see below, p. 42). Even less informative is Philo, *Leg. alleg.* 2.15c (on the wise imposers of names) which is simply an echo of Plato's *Cratylus*. In a quite different vein is the account of the development of language in *Vitr.* 2.1.1, which was ascribed to Posidonius by Rudberg, following Poppe 1909, who argued that Vitruvius' theory of culture in 2.1 is Posidonian. Poppe's claim was rightly modified or even denied (see Cole 1990: 193–5), and the linguistic part of this theory, which is relevant here, on the one hand does not mention the wise imposers of names, and on the other treats the imposition as accidental (i.e. takes a conventionalist stance – *quotidiana consuetudine uocabula ut obtigerant constituerant*), and thus contradicts the above-mentioned passages. The same is true for the origin of language in Diodorus of Sicily (1.8.3–4), which is close to Vitruvius and was mainly for this reason ascribed to Posidonius by some scholars: the initial sounds of the first humans are confused; they are articulated gradually, and then assigned to things; since this imposition had an accidental character in various parts of the world, different languages appeared. Cole's claim that both Diodorus and Vitruvius go back ultimately to Democritus still seems to me the most attractive proposal. The main evidence for Democritus' linguistic theory (Proclus, *In Cra.* 16.6.20–7.16 Pasquali = 68B 26 DK) on the arbitrary character of the relation of names to things is close enough to Diodorus' and Vitruvius' accidental imposition, although Democritus, on Proclus' evidence, discussed only the arbitrary relation within one language and did not refer to arbitrariness as the cause of the origins of different languages (see Verlinsky 2006). Dio Chrysostomus 12.28, which presents the emergence of language as a gradual process of imposition of names appropriate to things, may in fact be Stoic, and may be relevant for Posidonius' views (see below).

¹³ Str. 2.3.7 = fr. 49 E.–K.: Ἐπιχειρήσας δὲ αἰτιάσθαι τοὺς οὕτω τὰς ἡπείρους διορίσαντας, ἀλλὰ μὴ παραλλήλοις τισὶ τῷ ἰσημερινῷ, δι' ὧν ἔμελλον ἐξαλλάξεις δεῖκνυσθαι ζώων τε καὶ φυτῶν καὶ ἀέρων, τῶν μὲν τῇ κατεψυγμένη συναπτόντων τῶν δὲ τῇ διακαεαυμένη, ὥστε οἰνοὶ ζώνας εἶναι

Posidonius' position can be retrieved from Strabo's ensuing criticism: he treated the zonal differences just mentioned, as well as ethnic differences, including differences of language, as the effects of providence (fr. 49.317–19 E.–K.), i.e. he assumed or argued that these differentiating climatic influences are beneficial. As follows from Strabo's counter-argument, the ethnic differences include, apart from languages, capacities of developing crafts and sciences (fr. 49.319–26 E.–K.).¹⁴

Strabo blamed Posidonius not only for the alleged contradiction but also for confusing the causal factors: ethnic and linguistic differences arise, according to Strabo, not from providence but from 'accident and chance';¹⁵ he thus put in doubt both the beneficent character of ethnic differences and the possibility of explaining them. At the end of the whole discussion he blames Posidonius' excessively 'physical' manner of treating geographical problems, and relates this to his generally 'aetiological' mode of investigation, in which he follows Aristotle, and which is rejected by 'our people', i.e. by the Stoics, because of the 'obscurity of causes' (fr. 49.360–3 E.–K.). Scholars usually treat this final passage, no doubt correctly, as reflecting the

τὰς ἡπείρους, ἀνασκευάζει πάλιν καὶ ἐν ἀναλύσει δίκης γίνεται, ἐπαινῶν πάλιν τὴν οὖσαν διαίρεσιν, θετικὴν ποιούμενος τὴν ζήτησιν πρὸς οὐδὲν χρησίμως.

¹⁴ The contradiction of which Strabo accuses Posidonius, viz. his approval of the existing division of the *oikoumene*, is illustrated by his explanation of the different physical properties of the Indians (living in Asia) and the Ethiopians (living in Libya): although they live along the same latitude, they differ due to the relative dryness/moistness of their habitats. The allegation of contradiction does not hold: apart from latitude, Posidonius also admitted other factors which influence climatic differences, and through them the differences in constitutions of living beings, see Kidd 1988: 268. The East–West difference to which Strabo refers here is probably related to Posidonius' distinction of the dry East and the moist West, see Kidd 1988: 802, but cf. Shcheglov 2006: 517–18.

¹⁵ αἱ γὰρ τοιαῦτα διατάξεις οὐκ ἐκ προνοίας γίνονται, καθάπερ οὐδὲ αἱ κατὰ τὰ ἔθνη διαφοραί, οὐδ' αἱ διάλεκτοι, ἀλλὰ κατὰ ἐπίπτωσιν καὶ συντυχίαν. Strabo's own position (fr. 49.319–27 E.–K.) is that although some ethnic differences depend on latitude [*para klimata*, not 'in spite of the latitude' (Kidd), cf. fr. 280.15], the other, presumably more important, ones, are the products of 'imposition' (*thesei* MSS) in linguistic matters, or of 'exercise and habituation' in crafts, arts, and typical preoccupations. Strabo accused Posidonius of confusing these factors. His argument (for what it is worth) is that (a) the crafts and sciences *after somebody started* (i.e. introduced) *them* prevail in any climate; (b) the scholarly abilities of Athenians in contrast to Spartans and even to Thebans (who live closer to them still) cannot depend on latitude; by the same token, Babylonians and Egyptians cannot owe their scientific abilities to the climate. The question of how much Strabo assigns to natural factors in the development of specific ethnic facilities remains mysterious, but the main point of his disagreement with Posidonius is the evaluation of those achievements which they both cannot regard other than as rational – the creation of languages, the invention of crafts, different kinds of knowledge, etc. Strabo understandably suppresses the question of inventions and discoveries which are more easily associated with natural predispositions, and substitutes them with the learning of already invented knowledge, easily reducing this to habituation. But Posidonius certainly had in view just the origin, not the cultivation, of differences, viz. scientific discoveries, creation of specific languages, types of education, etc.; thus he did not confuse the role of nature with that of human habituation – he attempted to give a reasonable account of the role of natural factors in these rational discoveries.

‘mainstream’ Stoic position, and use it to establish the correct conclusion that Posidonius went further than the Stoics before him in looking for the causes of concrete events and processes.¹⁶

It is plausible to see in Strabo’s criticism of Posidonius’ explanation of regional differences between the nations the same orthodox Stoic attitude – both lack of interest in such a causal approach, which expands on phenomena which have little philosophical importance, and admission that the causes in this field, i.e. the causal nexus of geography, environment, psychology, and history, are difficult or even impossible to investigate. Granted that we have no evidence contra, we can confidently use Strabo as a proof that Posidonius’ attempt to explain the differences of language (and also habit) between nations was an innovation on orthodox Stoicism.

One piece of evidence of the same negative character can be added. In a very different context, in the *Letters to Lucilius* (90) Seneca criticizes Posidonius for assigning the technical achievements of human civilization to the primordial sages – the proto-philosophers – and for looking for detailed explanations of how they came to their discoveries. According to Seneca, these inventions, contrary to morality, laws, and political institutions, have nothing to do with philosophical wisdom, and should be ascribed to *usus*, i.e. to everyday practice and experience (90.35).¹⁷

Although Seneca does not deny that there was a sort of inventiveness at work in the accomplishment of these discoveries, he certainly rejects the possibility of ascertaining the exact causes of technical inventions, as Posidonius sought to do, and denies their beneficent character. This gives us a hint that not only the differences between cultures in respect of their

¹⁶ Kidd (1971: 210–11) pertinently compares Strabo’s statement with Chrysippus’ response to his opponents (Plut. *De Stoic. repugn.* 1045b = *SVF* 2.973) that although there are no causeless events, the causes of some of them are obscure to our minds (it is implied that some causes cannot be discovered in principle). Cf. Kidd 1988: 73, Frede 1987a: 130–1. Strabo’s positive assertion that the differences between the nations are due to ἐπιπτώσειν καὶ συντυχίαν does not mean that he departs from the Stoic position; more problematic is his denial that these differences are the effects of Providence, since all events for the Stoics are determined and fate, *heimarmene*, is, according to them, coexistent with Providence – there are no events which are not ultimately providentially beneficial. Nevertheless, the Stoics certainly distinguished between actions which (subjectively, from the point of view of an agent) are in harmony with the *heimarmene*, and those which attempt to resist it (vainly, of course). This is approximately the point of Strabo’s criticism – as the orthodox Stoics before him, he does not see any value in explaining the factors which effect the differences – the causality which is at work here consists of the causal actions of the legislators and educators motivated by circumstances and their unreasonable responses to them. I thus do not think that there are reasons to doubt Strabo’s Stoic commitment in this passage, as Hatzimichali (2017) recently did.

¹⁷ *Non de ea philosophia loquor, quae ciuem extra patriam posuit, extra mundum deos, quae uirtutem donauit uoluptati, sed de illa, quae nullum bonum putat nisi quod honestum est, quae nec hominis nec fortunae muneribus deleniri potest, cuius hoc pretium est, non posse pretio capi. Hanc philosophiam fuisse illo rudi saeculo, quo adhuc artificia deerant et ipso usu discebantur utilia, non credo.*

intellectual achievements, but also the course of technical progress itself, were not discussed by Stoics before Posidonius (and by the Stoic 'mainstream' after him).

Seneca's criticism is different from that of Strabo but both point in the same direction: mainstream Stoicism after Posidonius (and, presumably, also before him) did not inquire after the causes of cultural achievements. The impression which these two pieces of evidence convey squares well with the silence of our sources on any elaborated Stoic views of the origin of culture. There is no authentic evidence for Zeno's views on this subject.¹⁸ We have the statement, probably going back to Chrysippus (Lact. *De ira Dei* 13 = *SVF* 2.1172), and which was used as an argument against the Academics, that necessity and experience would reveal the utility of many things now thought to be hostile to human kind, as they had already revealed this in the past.¹⁹ This demonstrates the relevance of the subject of cultural progress for the Stoics, but the interest in explaining human discoveries here does not go beyond a general reference to the factors determining progress, just as in Seneca.²⁰ Granted that there is no other evidence for Stoic interest in the subject of cultural progress beyond this, it seems not to be too bold to propose that mainstream Stoicism did not have any detailed doctrine of cultural progress in terms of aetiology; minimally, we can maintain that the origin of human language, and also of technology, did not receive detailed examination among the Stoics before Posidonius.

In contrast, Posidonius' theory in this field was broad: according to Seneca, it embraced the development of morals and of political institutions, and also of various branches of technology.²¹ In these fields Posidonius attempted to give explanations of human inventions and to establish

¹⁸ Contrary to Edelstein 1967: 138, the views which are attacked by Theophrastus in Philo, *De incorr. mundi* 24 = *SVF* 1.106 do not belong to Zeno, as David Sedley has demonstrated (Sedley 1998b, Sedley 1998a: 166–85).

¹⁹ See Edelstein 1967: 145 on this statement. See Sedley 2007: 234–5 on the other Stoic responses to Epicurean and Academic accounts of the evils of the universe.

²⁰ Balbus' catalogue of human inventions (Cic. *N. D.* 2.150–3), which is used as a proof of the aloofness of human nature, and thus of the purposefulness of creation, probably sheds light on the mainstream Stoic treatment of the subject: even if Balbus' speech has some relation to Posidonius, as the scholars suppose, this particular piece may well be inherited from mainstream Stoicism. There is no interest here in the causes of singular discoveries or in the details of the process of cultural development, as was typical for Posidonius; the human achievements here listed are only manifestations of man's happy initial facilities granted by the providential God. Persaeus' teaching on the divinization of things useful for humankind and then, in the next step, of their inventors (*SVF* 1.448), certainly confirms Stoic interest in inventions, but does not need to be part of a broader discourse on the origin of civilization in the manner of the Epicurean school (I'm grateful to the anonymous reviewer of this volume for reminding me of Persaeus).

²¹ See the recent detailed reconstruction of Zago 2012, and also Alesse 2012.

causal connections between them, so that their development was presented as a gradual process. Posidonius' standpoint was that there is a strict continuity in the development of philosophy from the very beginning of human existence up to the later stages which are traditionally labelled as 'philosophy': all pioneering human achievements in technology, agriculture, and politics are *philosophical* inventions. Seneca disagreed with Posidonius insofar as this concerned technology (Seneca defends the 'hard primitivist' stance, arguing that even elementary improvements of human life are superfluous because they lead to moral deterioration), but agreed insofar as it concerned development in the moral and political fields (he, however, is prone to denying the title of philosophical wisdom for the wise – the *sapientes* – who were active before moral philosophy started; Posidonius, on the contrary, insisted on continuity).

Some further points should be stressed. Posidonius' view of the development of culture is strongly intellectualist and elitist – humankind at its very beginning voluntarily, because of its moral integrity, obeyed the power of the wise, who were their kings, like the animal herd; all subsequent discoveries were also made by outstanding persons. In this respect Posidonius clearly follows the example of Plato, with his philosophically wise name-givers in the *Cratylus*, and probably also of his Stoic predecessors, who took over this motif from Plato in their etymological exercises. Notice that before Posidonius neither Plato (with some some exceptions, such as *Philebus* 16c) nor even less the Stoics, as far as we can judge, treated the other fields of human culture as having emerged due to philosophical intellectuals. This was certainly Posidonius' innovation (being distinct from the account of mainstream Stoicism), giving the traditionally revered 'first inventors' the place of honour in the integral history of philosophy.

Next, as follows from Seneca's polemics, the reason for evaluating the outstanding persons as philosophers (they are just philosophers, not the Stoic sages) was for Posidonius, first, that they met, at that moment, the pressing needs of humankind (see *Ep.* 90.16 on the cold), being guided not by self-interest but by care for the rest of humankind; and, second, because the first step in discoveries in every field was notoriously difficult: Seneca, with some irony, cites Posidonius' claims that the craft of grinding and baking bread was invented through the imitation of chewing and digesting food, or that ships were invented through analyzing the anatomical structure of fishes (see *Ep.* 90.22). The meaning of this hypertrophic intellectualism becomes clear once we understand it as a polemical response to Epicurus' theory of human discoveries as being due to compulsion by nature or to imitation of natural processes: seeing that, as pioneers, the

inventors had no teacher apart from nature itself, they should be rather seen as natural philosophers, like the name-givers of the *Cratylus*.²²

In view of this impact of the *Cratylus* on Posidonius' intellectualist stance, and also because the earlier Stoics were committed to treating names as the impositions of the wise, it is improbable that he failed to treat the origin of language in the same intellectualist vein as moral and technical discoveries, although this particular point is not mentioned by Seneca. Strabo provides a welcome testimony that the origin of differences between languages was treated by Posidonius as an effect of the providential influence of the natural environment.²³ I will argue that the context in which it is made strongly suggests that language was for Posidonius one of the philosophical inventions, and that environmental influences served as an additional factor in all other fields of discovery. But, before this, I will propose another important predecessor of Posidonius' views.

Although evidence for the details of Posidonius' theory is scarce, in terms of the number of branches of human culture it discusses, and in terms of the attention it gives to (a) the aetiology of inventions and their mutual relations, and to (b) the causes of human progress in general, his theory can in fact be compared with only one other: that of Epicurus. It is not my purpose in this paper to discuss in detail the relation of Posidonius' views on the origin of culture to Epicurus' views, which, surprisingly, has

²² Both of these reasons are obfuscated by Seneca, who responds to the first with 'hard primitivist' claims and to the second with the repetitive 'empirical' argument that the first inventors of crafts need not be persons of higher intellectual ability than those who are now engaged in these occupations and make occasional improvements to them; he does not fail to notice, however, Posidonius' implied rebuttal of such a claim: *omnia haec sapiens quidem inuenit; sed minora quam ut ipse tractaret* [sc. the further improvements] *sordidioribus ministris dedit* (90.25) – philosophy is thus preoccupied with the first inventions only.

²³ Zago (2012: 174–5 with n. 63) denies that Posidonius ascribed to the ancient sages the creation of language, because language was not mentioned by Seneca in his criticism of Posidonius in *Letter* 90. According to Zago, Posidonius did not ascribe true philosophical wisdom to a stage as early as that at which language appeared (cf. pp. 217–26). He is thus inclined to interpret the Stoic theory of the origin of language as a natural process which is inherent to the whole of humankind, and agrees with Allen that the sages could be only the leaders, but not the creators of words, in this process. I do not believe that Seneca's silence can serve as an argument, because he is selective in citing Posidonius and treats, for the most part, points of disagreement. Moreover, Seneca's direct citation from Posidonius (*Ep.* 90. 7 = Posidon. fr. 284.22–4 E.–K.) attests that the latter ascribed to philosophical wisdom, for instance, the invention of primitive building, before which people lived dispersed in caves or in the hollows of trees. The philosophical persons thus start operating at a very primitive stage; a stage which corresponds to one at which the germs of society and of linguistic communication appeared in other theories, such as the Epicurean one (Lucr. *DRN* 5.1011–23, cf. 948–57). But if the ascription of Dio's reasoning to Posidonius (see below) is plausible, it might imply that language in his theory was, at least initially, the product of rational invention, but was ascribed not to the single sages but rather to the whole of humankind, who acted as rational name-givers (this is, I believe, what Allen supposes to be 'mainstream' Stoic teaching, although he does not cite evidence for this).

seldom attracted the attention it deserves. In fact there are reasons to think that Epicurus' theory was, for Posidonius, both the standard – in its aetiological approach to inventions and in its attempt to reconstruct the whole causal chain of human progress – on which his own doctrine of culture, innovating on orthodox Stoicism, could be modelled, and, simultaneously, the main target of his attack, in its general tendency to deny the providential care of the gods and the primary role of rationality in human achievements. Epicurus (*Ep. Hdt.* 75–6) attempted to explain cultural discoveries by such factors as natural compulsion, most obviously in his idea of the spontaneous origin of proto-words, and direct learning from nature, i.e. the imitation of natural processes, like the invention of cooking following observation of the softening power of the sun's warmth (*Lucr. DRN* 5.1101–4), trying to eliminate any supposition of supernatural or extraordinary wisdom as an operative force in inventions.²⁴ It is noticeable that Posidonius employed a pattern of explanations similar to that of the Epicureans (see above on the imitation of natural processes), presenting inventions as starting from observations, but requiring also the rational penetration of nature, thus stressing, most probably against Epicurus, that culture is the product of outstanding intellectual efforts (and thus possibly demonstrating the divine care which is manifest in this development, contrary to Epicurus). It would be most natural for Posidonius to use Plato in this polemical reshaping of Epicurus' theory, giving a more consistent and more realistic form to Plato's non-systematic reasoning on this subject, such as the presentation in the *Cratylus* of the knowledge of the earliest humans as philosophical or proto-philosophical, or the ascription of human technical and scientific inventiveness to divine gifts or divine teaching, or the focus on the special closeness of the earliest humans to the gods and of the care of the latter for humankind.²⁵ Once again, the pattern for this Posidonian critical re-interpretation of Epicurus' aetiology in the spirit of Plato was, in a way, created by Epicurus himself. Epicurus, while building his own theory of culture, critically addressed Plato's

²⁴ We know one of the aims of this Epicurean polemic, namely the rebuttal of the claim that names were imposed (and thus that language was invented) by an extraordinarily wise person; here the polemic relies on arguments against aprioristic invention modelled on the argument against the divine creator (see below pp. 43–4).

²⁵ Scholars have often noticed some affinity between Posidonius' views, which are for the most part known from Seneca, and Lucretius' treatment of the origin of civilization, and have supposed the influence of the former on the latter. There are, however, considerable reasons to believe that this affinity implies the dependence of both on Epicurus' lost teaching in his *On Nature*, which Lucretius followed closely (see Sedley 1998a), and which Posidonius used in a polemical fashion. I hope to endorse these claims in my forthcoming paper on Posidonius' debt to Epicurus in his theory about the origin of culture.

relevant views (such as the ascription of language to the primordial *nomothetai*), and sometimes endorsed the doctrines of Plato's opponents, placing them in a modified form in his own account of the development of culture.²⁶ In what follows I will discuss, however, independently of this larger claim about Posidonius' general theory of culture, only his views on the origin and development of language, in their possible relation to both of his outstanding predecessors, Plato and Epicurus.

One important aspect of Posidonius' views concerning the dependence of language on geographic differences is known from Strabo's discussion of the Eremboi-problem in *Od.* 4.84 (on Menelaus' travelling), Αἰθιοπᾶς θ' ἰκόμεν καὶ Σιδονίους καὶ Ἐρεμβούς (Str. 1.2.34 = fr. 280 E.-K.; 16.4.27 = fr. 281 E.-K.). Posidonius followed the view of Zeno of Citium, who interpreted Homer's Eremboi as Arabs, but unlike Zeno he did not recommend altering *Eremboi* to *Arabes* in Homer's text. He proposed instead that Homer used the designation of Arabs current in his time, viz. either *Eremboi* or, with a slight alteration, *Aramboi*.²⁷

²⁶ Thus, for instance, the origin of justice from the primitive covenants, which was rejected by Plato, was placed by Epicurus in a reshaped form in his account of the evolution of society, in such a way, arguably, as to make it immune to Platonic arguments (and of course also to bring it into compliance with the tenets of Epicurus' own teaching). I hope to discuss this and other relevant subjects in a forthcoming paper on the origin of Epicurus' approach to the beginnings of language and culture.

²⁷ In 1.2.34 = fr. 280 E.-K. Strabo ascribes to Posidonius no emendation of Homer's text, and there are some reasons to think that the view he himself asserts, that it is not necessary to change the reading of a text which has the authority of antiquity, is Posidonius' one: Strabo refers here to the regularly occurring 'change of the name' (*tou onomatos metaptosis*, fr. 280.5-6), and further says that *Eremboi* is the Hellenized form of the ethnic name of the Arabs which was current in ancient times, the distortion having been provoked by the popular etymology of Eremboi from *eis ten eran embainein*; in fact, in fr. 281a.22-30, Posidonius similarly ascribes to Homer the distortion of the self-designation of the Syrians, *Aramaioi* into *Arimoi* (*Il.* 2.783), and cites other cases of similar distortions of Oriental proper names, which is presumably the same point Strabo makes when speaking of *metaptosis* in 1.2.34. The exact position of Posidonius is not clarified further by 1.2.34 = fr. 280; we are told only that he proposed restoring the original meaning of Homeric *Eremboi* on the basis of kinship of Arabs, Armenians, and Syrians and their common features (the attested ethnic names of Arabs here are only *Eremboi* and *Arabes*). However, according to Strabo 16.4.27 = fr. 281a.11-13 E.-K., Posidonius, contrary to Zeno, who changed *Eremboi* into *Arabes*, γράφει τῷ παρὰ μικρὸν ἀλλάξει 'καὶ Σιδονίους καὶ Ἐρεμβούς,' ὡς τοῦ ποιητοῦ τοὺς νῦν Ἄραβας οὕτω καλέσαντος, καθάπερ καὶ ὑπὸ τῶν ἄλλων ὠνομάζοντο κατ' αὐτόν. This is the manuscript text, and the quotation suggests that Posidonius did not change the text. But the words πιθανώτερον . . . γράφει τῷ παρὰ μικρὸν ἀλλάξει (i.e. Posidonius proposed a reading which is more convincing than Zeno's because he changed the text only a little) seem to suggest that Posidonius did propose an alteration. G. Kramer in his edition (Kramer 1852) accordingly changed Ἐρεμβούς at fr. 281a.13 and 18 into Ἀραμβούς, following the marginal variant in F at the latter place (Tyrwhitt 1788: 66-7 already, without knowledge of this manuscript, proposed Ἀρεμβούς); this form is plausible because, on the one hand, *Aramboi* is closer to the *Aramaioi* and *Armenioi* than *Eremboi*, and, on the other, the resulting transformation of the name *Aramaioi* – *Aramboi* – *Arabes* is more plausible than *Aramaioi* – *Eremboi* – *Arabes*. It is interesting that, according to one group of the scholia to *Od.* 4.84, the alternative reading to Ἐρεμβούς was 'reading with -α-', cited by manuscripts of the scholia

Both reports of Posidonius' reasoning by Strabo are essentially the same, but they mutually complement each other in some interesting ways. According to the earlier one, (1.2.34 = fr. 280 E.–K.), one should read *Eremboi* (or *Aramboi*) in Homer and understand this to mean Arabs, since three peoples, Arameans (Syrians), Armenians, and Arabs, are very similar in their languages, modes of living, physical characteristics, and life in close proximity to each other.²⁸ The similarity of these peoples is greater, the closer they are to each other: the Syrians and those Armenians and Arabs who dwell in Mesopotamia have some differences, in accordance with their geographical locations (notice that the main cause of differences within Mesopotamia is the latitude – *klima* – of the habitats of these nations), but the similarity of peoples prevails; the larger differences between the Syrians and the Armenians and Arabs beyond Mesopotamia (most Armenians and Arabs dwell naturally beyond its borders) thus prove that all these peoples initially formed a unity and inhabited Mesopotamia.²⁹

variously as Ἀραμβούς / Ἐρεμβούς (p. 181.21–2 Dindorf), which might serve as a confirmation that Posidonius' reading was Ἀραμβούς. So far, Kramer's Ἀραμβούς seems to be convincing, and Kidd (p. 956) admits that Strabo here reports a slightly different version of Posidonius' view in comparison with the earlier citation at fr. 280, supposing that Posidonius discussed the subject on several occasions, both in *On the Ocean* and in the *History*. This might be the case, but, alternatively, in order to harmonize both pieces, I would propose that Strabo's second report (fr. 281) does not imply that Posidonius changed Homer's text, but that παρά μικρόν ἀλλάξει means, brachylogically, that he ascribed to Homer a small alteration of the pristine name of the Arabs, viz. of some name which was closer to Aramaioi and Armenioi than Arabes, into *Eremboi*. His explanation, ὡς τοῦ ποιητοῦ τοὺς νῦν Ἀραβας οὕτω καλέσαντος, καθάπερ καὶ ὑπὸ τῶν ἄλλων ὠνομάζοντο κατ' αὐτόν, thus refers not to the real (self-)designation of the Arabs in that time but to the variant of it current among the Greek contemporaries of Homer. This has the advantage of keeping the manuscript text of Strabo intact, and of harmonizing Posidonius' statements in both passages; it also accords with Posidonius' statement that Homer and his contemporaries distorted the ethnic name of all Syrians *Aramaioi* into *Arimoi* in the continuation of the latter passage (Strabo, we recall, himself endorses this strategy in his explanation of Homeric *Eremboi*, and seems to ascribe it to Posidonius in the former passage, fr. 280.5–6). The reading Ἀραμβούς in the second passage, fr. 281a.18, from the margin of F, might well be correct here and thus give us the real self-designation of the Arabs in ancient times according to Posidonius. However, it could equally be an ancient or Byzantine emendation provoked by a line of reasoning similar to that of modern scholars, i.e. that *Eremboi* is not similar enough to *Aramaioi* and *Armenioi* (by the same token, it is quite possible that the form Ἀραμβούς or Ἐρεμβούς cited by the scholia to the *Odyssey* was invented by those who thought that Homer had in mind Arabs, independently from Posidonius' reasoning about the kinship of the three peoples, cf. Lehrs 1882: 237). Notice that in fr. 280.23 Strabo, while arguing that the Arabs' ancient self-designation is akin to *Aramaioi* and *Armenioi*, calls the Arabs by two names, *Arabes* and *Eremboi*, and does need any additional form, like *Aramboi*. This makes me suspect that Posidonius did not mention the exact self-designation of the Arabs in ancient times (understandably, because it is not attested) and pointed out only that it was at that time closer to *Aramaioi* and *Armenioi*.

²⁸ Cf. the discussion of this passage by David Blank, in this volume, pp. 136–9.

²⁹ τὸ γὰρ τῶν Ἀρμενίων ἔθνος καὶ τὸ τῶν Σύρων καὶ Ἀράβων πολλὴν ὁμοφυλίαν ἐμφαίνει κατὰ τε τὴν διάλεκτον καὶ τοὺς βίους καὶ τοὺς τῶν σωμάτων χαρακτῆρας, καὶ μάλιστα καθὸ πλησιόχωροί εἰσι.

Although the following sentence is badly damaged, it is clear that Posidonius pointed to some other peoples, also living in Syria and having characteristics similar to those of each other and to those of the Arameans, Arabs, and Armenians, the ethnic names of whom are also of a similar kind (καὶ οἱ Ἀσσύριοι δὲ καὶ οἱ Ἀριοὶ παραπλησίως πως ἔχουσι καὶ πρὸς τούτους καὶ πρὸς ἀλλήλους).³⁰ In the end, Posidonius maintained (presumably arguing from the kinship of all these peoples) that their ethnic self-designations are also akin (not only that they sound similar), and that the Homeric *Eremboi* (this was the main point of the whole discussion) points to the ethnic name of Arabs, the *Eremboi* being a distorted form of an ancient self-designation of the Arabs, something like *Aramboi*.³¹

The next citation by Strabo of the same (or similar) reasoning of Posidonius on Homeric *Eremboi* (Str. 16.4.27 = fr. 281a E.–K.) makes the same point in a more concise form – one should read in Homer *Eremboi* (or *Aramboi*), because of the similarities between and, accordingly, the kinship of, Arameans, Armenians, and Arabs; their ethnic names are thus also kindred, and *Eremboi* points to a name that is similar to *Aramaioi* and *Armenioi* – but is more explicit on the crucial point of the underlying theory: these three peoples are in fact the descendants of a single people which was later split into three tribes. According to the environment of their new abodes they gradually changed their ethnic features in accordance with their *klimata*, viz. the latitude (the differences presumably were greater, the further away they moved from their initial abode: see the report of Strabo (fr. 280) discussed above). The diverging ethnic names

δηλοῖ δ' ἡ Μεσοποταμία ἐκ τῶν τριῶν συνεστῶσα τούτων ἔθνῶν· μάλιστα γὰρ ἐν τούτοις ἡ ὁμοίότης διαφαίνεται. εἰ δὲ τις παρὰ τὰ κλίματα γίνεται διαφορὰ τοῖς προσβάροισι ἐπὶ πλεόν πρὸς τοὺς μεσημβρινοὺς καὶ τούτοις πρὸς μέσους τοὺς ὄρους, ἀλλ' ἐπικρατεῖ γὰρ τὸ κοινόν.

³⁰ The names were variously emended, cf. Kidd 1988: 954–5; the *Aramaioi* seems to be wrong – it is further adduced as the self-designation of the Syrians (cf. 16.4.27 on *Arimaioi* – *Aramaioi*).

³¹ εἰκάξει γὰρ δὴ καὶ τὰς τῶν ἔθνῶν τούτων κατονομασίας ἐμφερεῖς ἀλλήλαις εἶναι. τοὺς γὰρ ὑφ' ἡμῶν Σύρους καλουμένους ὑπ' αὐτῶν τῶν Σύρων Ἀραμμαίους καλεῖσθαι· τούτῳ δ' εἰοικέναι τοὺς Ἀρμενίους καὶ τοὺς Ἀραβας καὶ Ἐρεμβοὺς, τάχα τῶν πάλα Ἑλλήνων οὕτω καλούντων τοὺς Ἀραβας, ἅμα καὶ τοῦ ἐτύμου συνεργούντος πρὸς τοῦτο. ἀπὸ γὰρ τοῦ εἰς τὴν ἕραν ἐμβαίνειν τοὺς Ἐρεμβοὺς ἐτυμολογοῦσιν οὕτως οἱ πολλοί, οὓς μεταλαβόντες οἱ ὕστερον ἐπὶ τὸ σαφέστερον Τρωγλοδύτας ἐκάλεσαν. (Kidd thinks that the underlined words are Strabo's addition to Posidonius, because he derives the name of *Eremboi* from its popular Greek etymology; but this could easily be a part of Posidonius' reasoning, as Radt (2002–2011: 8.394) admits, if he retained *Eremboi* in Homer's passage; the point would be that Homer used the self-designation of the Arabs in the distorted form which was inspired by the popular etymology): οὗτοι δὲ εἰσὶν Ἀράβων οἱ ἐπὶ θάτερον μέρος τοῦ Ἀραβίου κόλπου κεκλιμένοι, τὸ πρὸς Αἰγύπτῳ καὶ Αἰθιοπία.

are the result of these ethnic divergences, i.e. their languages gradually changed under the influence of a new environment.³²

These scraps of Posidonius' theory confirm that local affinity was for him the main explanation of similarities in language (as well as in national habits), and that languages were thought to diverge together with the separation of parts of the same people from each other. This gives a picture of the evolution of both language and culture as a natural and appropriate response to the environment, and of ensuing changes under the influence of new environmental conditions. It might seem that Posidonius' views on the origin of different languages also entails something like the spontaneous and mechanical reactions of the creators of language (or simply of the initial language-speakers) to their specific environment, thus bringing him close to a stance of mechanistic determinism in linguistic matters. For this reason, his theory seems to invite a comparison with the doctrine of the Hippocratic *On Airs* (5.4, 6.5, 7.2, 8.7, 15.5 Diller) on immediate climatic influences on human phonetics. Nevertheless, this would be a hasty inference. First, differences in language were, for Posidonius, on the same level as differences in habits, scientific discoveries, and moral customs. All these specific features are not only the necessary effects of environmental influences, but also the result of rational responses to them. As for languages, there is already one hint in the exposition of Posidonius' views in Strabo that he resisted the mechanistic interpretation of linguistic difference. Strabo's account shows indirectly that change of locality did not mean necessarily linguistic differentiation, as is shown by the persistence of the ethnic name of Arabs both in and out of Mesopotamia. Additionally, the language of Arabs in and out of Mesopotamia (as well as other ethnic peculiarities) would have remained the same in spite

³² μάλλον περί τῶν Ἑρεμβῶν ἢ ζήτησις, εἴτε τοὺς Τρωγλοδύτας ὑπονοητέον λέγεσθαι, καθάπερ οἱ τῆν ἐτυμολογίαν βιαζόμενοι ἀπὸ τοῦ εἰς τὴν ἔβραν ἐμβαίνειν, ὅπερ ἐστὶν εἰς τὴν γῆν, εἴτε τοὺς Ἄραβας, ὁ μὲν οὖν Ζήνων ὁ ἡμέτερος μεταγράφει οὕτως 'καὶ Σιδονίους Ἄραβας τε'. πιθανώτερον δὲ Ποσειδώνιος γράφει τῷ παρὰ μικρὸν ἀλλάξει 'καὶ Σιδονίους καὶ Ἀραμβούς (Cramer; Ἑρεμβούς MSS)', ὡς τοῦ ποιητοῦ τοὺς νῦν Ἄραβας οὕτω Ἀραμβούς, ὡς τοῦ ποιητοῦ τοὺς νῦν Ἄραβας οὕτω καλέσαντος, καθάπερ καὶ ὑπὸ τῶν ἄλλων ὀνομάζοντο κατ' αὐτόν. φησὶ δὲ <ταῦτα secl. Radt> τρία ἔθνη συνεχῆ ἀλλήλοις ἰδρυμένα ὁμογένειάν τινα ἐμφαίνειν πρὸς ἄλληλα, καὶ διὰ [τοῦ]το παρακειμένοις ὀνόμασι κεκληθῆσαι, τοὺς μὲν Ἀρμενίους τοὺς δὲ Ἀραμαίους τοὺς δὲ Ἀραμβούς (F marg. Ἑρεμβούς sett.) ὥσπερ δὲ ἀπὸ ἔθνους [ἐνός] ὑπολαμβάνειν ἐστὶν εἰς τρία διηρῆσθαι κατὰ τὰς τῶν κλιμάτων διαφορὰς αἰεὶ καὶ μάλλον ἐξαλλαττομένων, οὕτω καὶ τοῖς ὀνόμασι χρῆσασθαι πλείοσιν ἀνθ' ἐνός. οὐδ' οἱ Ἑρεμβούς γράφοντες πιθανοί· τῶν γὰρ Αἰθιοπῶν μάλλον ἴδιον. λέγει δὲ καὶ τοὺς Ἀρίμους ὁ ποιητής, οὗς φησὶ Ποσειδώνιος δέχεσθαι δεῖν μὴ τόπον τινα τῆς Συρίας ἢ τῆς Κιλικίας ἢ ἄλλης τινὸς γῆς, ἀλλὰ τὴν Συρίαν αὐτήν· Ἀραμαῖοι γὰρ οἱ ἐν αὐτῇ· τάχα δ' οἱ Ἕλληνες Ἀρμαίους ἐκάλουν ἢ Ἀρίμους. αἱ δὲ τῶν ὀνομάτων μεταπτώσεις καὶ μάλιστα τῶν βαρβαρικῶν πολλαί· καθάπερ τὸν Δαριήκην Δαρεῖον ἐκάλεσαν, τὴν δὲ Φάρζιρον Παρύσατιν, Ἀταργάτιν δὲ τὴν Ἀθάραν· Δερκετῶ δ' αὐτὴν Κτησίας καλεῖ.

of migrations. To better understand this aspect of the theory (namely, the persistence of ethnic distinctions) one should remember that the 'orthodox' Stoic view was that language emerged through imposition, i.e. through rational assignment of names appropriate to objects. There is no evidence that Posidonius departed from this view, and it is entirely plausible that he treated the differences of languages, like the other ethnic differences he discussed, as the result of the combined effect of the natural environment and human creativity. We should add to this the typical ancient emphasis on the initial phase of the process as the decisive one. Posidonius' theory of human culture thus appears to entail a series of fundamental discoveries which were somehow influenced by climatic differences, rather than automatic responses to environmental influences. In the particular case of language, the theory would involve the rational imposition of names, somehow influenced by specific climatic influences; these may stimulate further divergences in language due to migrations of native speakers, and even the splitting of the language into new languages, but again this occurs not mechanistically but rather through the rational acts of the later impositors of names, who somehow take these changes into account; at the same time, a simple migration of a person or of a group would not effect a considerable linguistic change, in spite of living in a new environment, because there is no 'impositor' who would fix these changes. It is worth noticing that the Hippocratic theory explains only phonetic differences, but does not attempt to explain the lexical differences which are of course most important for language differentiation – presumably, it tacitly assumes them to be the effect of 'rational' inventions, according to the prevailing view. According to the *Cratylus*, a language is exposed permanently to the deformations of the initial words by the native speakers, but is basically created by the initial impositions of names to things; there is no idea that later partial changes, even if they are shared now by all speakers of the language, would fundamentally change the set of relations between words and *nominata* that were created by the initial authoritative legislative acts.

In order to better understand the character of Posidonius' innovation, it is important to keep in mind that his claim regarding the influence of the natural environment on ethnic differences has a respectable Stoic ancestry. The influence of climate on different mental abilities of representatives of various nations was already admitted by Chrysippus (Cic. *Fat.* 7 = *SVF* 2.950).³³

³³ For a suggestion of how these differences could have had a providential character, see Sedley 1993, who stresses the role of the air each nation breathes, and the relevance of the air for the

Panaetius argued for climatic influences on individual differences (Cic. *Div.* 2.94), and for the influence of *terrarum situs* (ibid. 96–7), i.e. of climate, on the physical and psychic faculties of different peoples, opposing it to the theory of the influence of the moon (and stars) on the child at the time of birth.³⁴

However, Posidonius' own teaching seems to be different from that of each of his predecessors. Galen summarizes it as follows: differences in the characters of both animals and human beings depend on differences in their physical constitutions: those who are broad-chested and warmer are braver, those who are wide-hipped and colder are more cowardly. National characters are, accordingly, different in respect of cowardice and bravery, love of pleasure and industriousness, depending on the area in which each people live, because the affective motions of the soul always follow the disposition of the body, which varies considerably with the temperature (*krasis*) of the environment. Posidonius also mentioned differences in temperature and density of blood in human beings and animals, which also, apparently, depend on the environment, and serve in all probability as the immediate explanation of differences in affective motions (Gal. *PHP* 5.5.22–5, 1.320.22–322.25 De Lacy = fr. 169.84–96 E.–K.). National characters arising from these recurrent psychic motions are thus, ultimately, the effects of climatic influence, brought about via the intermediary of the constitution of the blood.³⁵

Chrysippus, as far as we know, only claimed that the mental capacities of nations somehow depend on the air they breathe, in a manner parallel to the influence of salutary or pestilent environments upon physical qualities (Cic. *Fat.* 7). Posidonius' theory goes far beyond this in elaborating the causal mechanism of environmental influences; unlike Chrysippus, he believed that climatic factors display their influence on physical predispositions to affective states. The differences between nations thus lay not in the intellectual capacities but in the prevailing

psychological state of the individual (which is a pneumatic state) (p. 331). On Chrysippus' position and Cicero's arguments against it, see Bobzien 1998: 294–7.

³⁴ Panaetius rejected astrology (Cic. *Div.* 2.88), and doubted the validity of divination in general (Cic. *Div.* 1.6), see Alesse 1997: 269 ad test. 136–9; the testimony on Stoic supporters of *heimarmene* notoriously omits Panaetius (Diog. Laert. 7.149).

³⁵ For the influence of climate on affective motions cf. Schmidt 1980: 18–21, Hahm 1989: 1350. We need not suppose, with Schmidt, that the different national characters somehow developed from the initial unity of mankind (19 n. 24, following K. Reinhardt); this initial unity is not attested in the evidence for Posidonius' teachings. Posidonius' point is only that the psychic features which are approximately identical in all human beings at the moment of birth then become different because of environmental influences. According to this account, the main factors are warm and cold (the same is implied by Strabo's criticism), and it seems correct to render *krasis* as 'temperature' (Kidd), not as 'climate' in the broad sense, *pace* Schmidt 1980: 19 n. 25.

emotional dispositions, such as the bravery of one nation or the cowardice of another.³⁶ Thus, Posidonius who, unlike Panaetius, returned to Chrysippus' teaching on the overall domination of the *heimarmene*, now made it a much more accountable and investigable system of natural causes, stretching from planetary motions at the top, to human psychology, individual and national, at the bottom.³⁷ The idea of climatic influence could thus be happily integrated into the whole of cosmic causality, since the distribution of climatic zones depends on their proximity to the sun. One more aspect can be added: it is probably not accidental that Strabo, in his polemics with Posidonius, mentions the advantageous dispositions of nations, and not their faults, whereas Chrysippus, according to Cicero's *De Fato*, only mentions these differences to show that some nations have hindrances which are fatal to the development of reason (cf. Galen on Chrysippus preferring the Greeks to the rest of humankind). Presumably, for this reason, Posidonius claimed, in opposition to mainstream Stoicism, that national differences demonstrate the work of the cosmic divine Providence. One may guess that he meant that they are beneficial for the corresponding part of humankind, as appropriate responses to the challenges of their environment, but also that they somehow contribute to the benefit of the whole; not only may

³⁶ This difference is a part of Posidonius' wider disagreement with Chrysippus on the psychology of affects, which we know primarily from Galen's report on the debate. Contrary to Chrysippus, who treated affects as the result of wrong judgements, Posidonius claimed a certain autonomy of affective predispositions; reason can either control affects or unduly yield to them, thus preserving freedom of choice (see Kidd 1971: 206–8). The scope of Posidonius' departure from Chrysippus, as well as from mainstream Stoicism became the subject of intensive scholarly debates (see esp. Tieleman 2003: 198–287). It is sufficient for my purposes that there is indisputable evidence for Posidonius' innovation in the psychological explanation of ethnic differences, even if Galen simplifies Chrysippus' views, and if the latter admitted that rationality is somehow affected by non-rational factors.

³⁷ Posidonius was committed to astrology and to divination in general, see Aug. *Civ.* 5.2 = Cic. *Div.* fr. 4 Giomini (the role of astrology in Chrysippus' teaching is debatable: see Ioppolo 2013: 99–118, in favour of its considerable role; Long 1982: 130–2, 152, in favour of its insignificance). While Posidonius' system of zone ethnography looks purely scientific on Strabo's account, this does not rule out that the phenomena usually treated by astrology also played a role in it; for astrology itself was for him the science or craft which collects the facts pointing to the *sympatheia* of the whole, even if astrology cannot discover the causes which underlie these data (see Cic. *Div.* 2.47 = fr. 109 E.–K. with Long 1986: 221–2). See also *Fat.* 5–7 = fr. 104 E.–K.: Posidonius defends the validity of predictions even if they come true only in homonymous relation to the things which (on a surface understanding) featured in the predictions; these are on a par with the other unexplainable coincidences in human fortunes (*ibid.*). The latter seems to imply that Posidonius, a tireless seeker of causes, hoped that science would discover in the future what sort of interconnection underlies such cases (notice that the mainstream Stoics held the view that etymology detects the kinship of words even if they related to remote *nominata* or those with contrary features).

bravery give an example to the whole of humankind, but so too may the affective dispositions that result in vicious moral states, like greediness, stimulate intellectual activities which are ultimately beneficial for all humans, such as, for example, arithmetic, invented by the Phoenicians (see Kidd 1978 on the subordinate but necessary role of science in relation to philosophy, according to Posidonius).

Now let us look at Posidonius' view of language differences. As we have seen, Chrysippus and the other Stoics before Posidonius were proponents of a form of linguistic naturalism. But their main concern was to maintain the appropriateness of certain words (especially those which seem to be the simplest ones) to the objects they designate; these attempts were made with Greek words only; it is difficult to see how such a theory could refute the conventionalist thesis about the multitude of different languages.

So far, this evidence suggests that Stoic naturalism before Posidonius did not involve any attempt to explain the existence of differences between languages, or to rebut the claim that said differences prove the correctness of the conventionalist theory. Strabo's reaction to Posidonius' theory shows that the orthodox Stoic answer was that these differences go back to causes of which it is enormously difficult or even impossible to give an account. It might imply that, according to orthodox Stoicism, the most primitive words imitate in some way or other the qualities of their *nominata*, but it is difficult to say why these imitative words vary in their phonetic content.

We do not know much about Posidonius' position in linguistic matters. Some of his etymologies are preserved, but they say little about his theoretical views: of course the Stoic commitment to etymologizing is well known (and is even overestimated), and Posidonius was presumably no exception, but etymological explanations can be found everywhere, for instance in Aristotle, whose theoretical stance was conventionalist. More relevant are some scraps of Posidonius' argument that the *syndesmoi*, which include for him not only conjunctions but also prefixes and prepositions, have their own semantic value – a theory which is contrary to the orthodox Stoic position;³⁸ at least some of them were called in this context 'the conjunctions which are according to nature' (Apollonius Dyscolus, *Conj. GG* 2.1.214.4–20 = fr. 45 E.–K.); Posidonius argued also that the Greek conjunction *epei* is composed of the conjunction *ei* and the preposition *epi*, and so has an etymology (fr. 192 E.–K.). It is thus possible that,

³⁸ See Kidd 1988: 200, who refers to Diog. Laert. 7.58, against the view of Frede 1987d: 330 that the 'naturalness' of conjunctions was already the orthodox Stoic view.

at least in some aspects, Posidonius' naturalism was more radical than that of his predecessors. It also shows that naturalism according to Posidonius is not reduced to etymological 'correctness', as was the case for the earlier Stoics.

Keeping this in mind, let me now return to Strabo's evidence. Posidonius' theory of the dependence of ethnic differences (including language) on climate has usually been viewed as belonging to the tradition of climatic ethnography which begins with the Hippocratic *On Airs*. But, in fact, we find in this tradition no attempt to take into account the existence of different languages (only some phonetic differences are noticed, as pointed out above, p. 31). It is more promising to suppose that Posidonius, in providing his obviously innovative explanation of the differences of languages along naturalist lines, took into account the famous passage from Plato's *Cratylus* which contains the earliest known argument against the conventionalist thesis concerning the differences between languages (the latter being brought forward in the dialogue by Hermogenes at *Cra.* 385d). Socrates' answer (389a5–390a10) constructs an analogy between the name and the tool:³⁹ just as the craftsman, having in mind the general type of tool he produces will produce every time a specific type of this tool in accordance with the material on which the tool should work, and uses, accordingly, a specific material to produce this tool, similarly the craftsman of names, having in mind the general type of name for a thing, will produce an appropriate name for each thing, which can have variable elements (syllables); such names will be appropriate no matter what elements they are made of, and the varying names for one and the same thing will, accordingly, be appropriate in different languages; the generally appropriate name for each thing will be its *physei onoma*, and the true imposer of names (*nomothetes*) is a person who is able to put the general type of name for each thing in variable letters and syllables (390d9–e5). So far, the analogy of the name and the tool seems to work, but one thing that remains puzzling is why the creators of language in different countries should make words for the same things from different elements. There is an important hint at it in the analogy which Socrates uses: the smith producing the drill *even for one and the same purpose* does not always use the same kind of iron for it (see Ademollo 2011: 136–7), but it remains nevertheless the right drill, provided that the generally appropriate form of

³⁹ It seems to me certain that Hermogenes uses these differences as one of the arguments in favour of his conventionalist stance, and that Socrates' tool-analogy serves as its refutation (cf. Ademollo 2011: 76, who is more cautious).

drill is preserved, no matter whether this drill has been produced among the Greeks or among the Barbarians. By the same token, while words can be made up of different phonetic material, each word remains the correct word for the thing in question if it reproduces the generally appropriate type of word for this thing, and the creator of such a word in one language is not worse than in another. This implies that the creators of words have no other option but to employ the material they have at their disposal, or in other words, that the words are composed of the elements which exist before the act of formation of the words starts, and these elements are not identical in different peoples.⁴⁰

The interlocutors are obviously satisfied with this refutation of conventionalism, but the difficulty which this analogy implies becomes evident when one looks at Socrates' further development of the naturalist theory: it is necessary to prove that the first, most primitive words, down to which the process of etymologizing will inevitably come, and which cannot themselves be further etymologized, are still appropriate to the things they designate. Socrates thus attempts to show that these words can be reduced to sounds, and that these sounds have mimetic faculties – they imitate the properties of the things which the corresponding words designate (424b–425c). Now, if we look at this theory from the perspective of the name–tool analogy, it becomes clear that the previous argument against conventionalism falls down. If every element of the most primitive word imitates some feature of the *nominatum*, and together in combination they imitate all its essential features, then there simply cannot be various words for one and the same *nominatum*, and the differences between languages cannot be explained along naturalist lines. It is not altogether clear whether Plato thought that the explanation of the differences between languages from the naturalist standpoint is refuted by this pushing of naturalism to its radical extreme, or, vice versa, that one should sacrifice radical naturalism in order to save the earlier explanation.⁴¹ Nevertheless, Cratylus in the dialogue has to admit that there is inevitably a conventional element in words which are made of matter that imitates the qualities of the *nominata*.

But whatever Plato's final view on the matter might be, it is clear that radical phonetic naturalism of the strict analytical kind found in Socrates' theory fails to explain the existence of different languages. It seems

⁴⁰ For the place of this reasoning in the whole argument of the *Cratylus* see Sedley 2003: 45–6, 66–7.

⁴¹ See the discussion of whether this radical naturalism contradicts the admission of the different words appropriate for one and the same thing, viz. of the existence of different languages, in Ademollo 2011: 137–8.

plausible that Epicurus took this difficulty into account when bringing forward his own naturalistic explanations of language differences. According to Epicurus (*Ep. Hdt.* 75–6), words (or, at least, the original words in each language), are natural in two senses: (1) because they are utterances provoked by certain emotional reactions to certain objects, and thus are not somebody's purposeful creations, and (2) because these utterances correspond to the *nominata*, i.e. to the objects which evoke these words. But these utterances vary from people to people because (a) the same things provoke different visual representations and different emotions in different places, presumably because things of the same type have their own particular features depending on the land in which they are found, and (b) there are, additionally, differences between nations themselves, in accordance with differences in their locations; this possibly implies some physiological and/or climatic peculiarities which influence the utterances (cf. the Hippocratic *On Airs*). This answer differs fundamentally from that of Plato (spontaneous utterances versus purposefully created words), but it shares with it one important assumption, namely that similar things should produce basically identical words. That Epicurus assumes this is also implied by Lucretius' argument from the various sounds of animals; in spite of their variety there is one fundamental type of utterance which corresponds to a certain situation and a certain emotion; in the same way, although the variety of human sounds greatly supersedes that of animals, a certain object produces in humans a certain emotion and a certain utterance (5.1056–90); additional factors with a bearing on the situation will include the peculiar features of objects, and probably also the influences of each peculiar environment. It is easy to see why the Epicureans did not sacrifice the correlation between specific things and specific words, but only softened it – otherwise it would be impossible to claim that in every given language there is an objective and necessary bond between the *nomen* and the *nominatum*; one would expect instead that different words are uttered in accordance with varieties of particular instances of these objects and with various occasional additional influences; the words we employ for each object would be the result of conventional legislation. The Epicurean theory presumes instead that a thing of a certain type produces basically an identical utterance in every situation and everywhere (a sort of essentialist assumption), but that there are also linguistic variations which develop together with the development of differences between the instances of the same *nominatum*, between the environments in various lands, and possibly also between the physiologies of different nations.

Epicurus' theory of the spontaneous origin of appropriate words avoids one of the difficulties which the naturalist theory in the *Cratylus* entailed. There is no trace in the Epicurean theory of an attempt to demonstrate that every element of the word corresponds to some feature of the *nominatum*; there is no correspondence of elementary sounds to the elementary parts of the *nominatum*. Objects evoke utterances with a certain phonetic content, and, contrary to Plato, the differences in the content of words for the same things can be plausibly explained by reference to local varieties of the things themselves and by reference to differences of environment.⁴²

Now let us look at the Stoic theory from this perspective. As we have already seen, the Stoics, beginning at least from Chrysippus, were committed to the view that language was created by the philosopher-like name-givers, and that etymologizing (in the broad Stoic sense) allows us to follow the origin of words back to their meaningful elements (sounds and syllables). The most detailed exposition of Stoic naturalism, at Aug. *Dial.* 6,⁴³ complements this scarce evidence; it shows the Stoic view to be in accordance with Socrates' second naturalistic discourse in the *Cratylus*: the etymology of every word can be discovered, and in order to escape infinite regression, it is necessary to assume that there are words which cannot be etymologically explained through other words; it remains to admit that they imitate the thing directly. These *cunabula uerborum* are either onomatopoeic, sound-imitating words like *hinnitus*, *tinnitus*, *balatus*, which imitate the sounds of physical objects or of animals; or words like *uepris*, 'torn-bush', or *mel*, *ubi sensus rerum cum sonorum sensu concordarent*, i.e. words whose sounds, harsh or gentle, evoke feelings which are similar to those which these things themselves evoke. The other words of this primitive kind, which designate things which cannot be imitated directly, were simply transferred onto them (with some modifications) from things of the first kind, according to the principles of proximity, similarity, and even contrariety between the corresponding *nominata* (see Barwick 1957a: 29–30, Long 2005, Allen 2005). Augustine also

⁴² The difficulty connected with Epicurus' theory is that one cannot argue that the primitive words of language correspond to the things which they designate – they cannot be etymologically true designations, because they are mechanically composed of sounds which have no linguistic meaning. In all probability, their appropriateness for the things they designate was only proved by the association of these words with the simplest and the chronologically earliest concept related to a given thing in the mind of the bearers of this language (*prolepsis*).

⁴³ Not in *SVF*; see *FDS*, and for the connection with Varro, see Barwick 1957a, Hülser 1987–1988.

mentions that words owe their mimetic capacities to the singular sounds of which they are composed.⁴⁴

The evidence of Origen (*C. Cels.* 1.24 = *SVF* 2.146) is unfortunately tantalizingly brief: the Stoics belong to the *physei*-party in the debate regarding the relation of words to objects (*physei* as opposed to the conventional imposition promoted by Aristotle), since their '*protai phonai*' imitate the things designated by the names; in accordance with this they introduce 'the elements of etymology'.⁴⁵ Since the *phonai* in the next sentence on the Epicurean doctrine refers to the proto-words, the same meaning can be assigned also to the Stoic *protai phonai*: they are thus, like Augustine's *cunabula*, the first, i.e. non-etymologized, words, not the singular sounds.⁴⁶ The primitive words imitate reality and are thus first in the sense of being non-derivative; they are also presumably historically first, because nobody ever spoke by means of singular sounds. But is it plausible that these words are the 'elements of etymology', i.e. those words to which all other words can be reduced by means of etymological analysis, as Long understands it?⁴⁷ One category of these words, the onomatopoeic words (*hinnitus*, *tinnitus*, etc.), certainly is not. But the words which imitate the properties of things via the similar effects of their soundings do this by means of their parts, syllables, or sounds. I suggest that they are the Stoic 'elements of etymology'.

So far, in view of Chrysippus' position, it is quite possible that the Stoics before Posidonius were committed to the extreme form of naturalism of the middle part of the *Cratylus*. It is understandable that such a theory was not amenable to attempts to take into account the differences between languages, regardless of whether its proponents were aware that the extreme naturalist stance of the middle part of the dialogue challenges the attempt to explain these differences along more moderate lines in the earlier part of it.

⁴⁴ He notices in general *lenitas uel asperitas litterarum*, and in analyzing the word *uis*, which belongs to the *cunabula*, he describes the sound of *u* as *crassum* and *quasi ualidum sonum* (see Barwick 1957a: 28).

⁴⁵ Λεκτέον δὲ καὶ πρὸς τοῦτο ὅτι ἐμπέπτει εἰς τὸ προκείμενον λόγος βαθύς καὶ ἀπόρητος, ὁ περὶ φύσεως ὀνομάτων· πρότερον, ὡς οἴεται Ἀριστοτέλης, θέσει εἰσι τὰ ὀνόματα ἢ, ὡς νομίζουσιν οἱ ἀπὸ τῆς Στοᾶς, φύσει, μιμουμένων τῶν πρώτων φωνῶν τὰ πράγματα, καθ' ὧν τὰ ὀνόματα, καθὼ καὶ στοιχεῖα τινα τῆς ἐτυμολογίας εἰσάγουσιν, ἢ, ὡς διδάσκει Ἐπικούρος, ἑτέρως ἢ ὡς οἴονται οἱ ἀπὸ τῆς Στοᾶς, φύσει ἐστὶ τὰ ὀνόματα, ἀπορρηγάντων τῶν πρώτων ἀνθρώπων τινὰς φωνὰς κατὰ τῶν πραγμάτων.

⁴⁶ For the identity of both see Barwick 1957a: 29.

⁴⁷ The meaning of the sentence καθὼ καὶ στοιχεῖα τινα τῆς ἐτυμολογίας εἰσάγουσιν is not altogether clear (cf. Long 2005: 37–8) but it is unlikely that it means, as Long renders it, [they] 'introduce the primary sounds as elements', because of the indefinite τινα; rather it means 'they introduce accordingly [i.e. in accordance with mimetic features of the first words] certain elements of etymology' (*ta prota onomata* instead of *ai protai phonai* in Long is a misprint).

Now, it seems plausible that both attempts to explain language differences, Plato's and Epicurus', were taken into account by Posidonius; his own solution is clear to us only insofar as he explained these differences with reference to geographic and climatic differences, and that he saw in them the action of Providence. It is not difficult to decide what position Posidonius took on Epicurus' defence of the spontaneous origin of words against Plato's theory of their creation by wise name-givers. Posidonius' culture is created by the wise men, and it is plausible that his view of the origin of language corresponded to Socrates' naturalism in the *Cratylus* – the different languages were created by the wise name-givers. But Socrates' reasoning was improved by Posidonius' on one significant point: it remains unexplained in the *Cratylus* just why the creators of language make appropriate names for the same things from different sounds. Epicurus' theory might provide such an explanation: the differences of word form are determined by (a) specific visual impressions and affects, and (b) ethnic differences which depend on the area in which the creators dwell. Although much in this tantalizingly brief statement remains obscure, I take it in the sense that (a) (seemingly) identical things had their own local peculiarities and thus impress upon humans differently, and the accompanying emotions evoked by these impressions (emotions are responsible immediately for the character of sounds) are again different because attitudes to similar things might be different in various areas (for instance, nations can react differently to sun or rain), and (b) there are differences between the peoples themselves, presumably in their physiology and, accordingly, in their phonetic capacities.

Posidonius' theory of zonal influences on different languages was compared above to the Hippocratic theory of the *On Airs*; but that theory had a very limited scope, and has nothing to do with linguistic naturalism, since it explains only phonetic differences, not differences of lexical character. Epicurus' influence is much more probable since the primary purpose of his theory is to explain how the existence of different words for (seemingly) the same things can be compatible with the claim that words are inherently related to their objects, and since it employs a wider system of factors in its explanation.⁴⁸ Now, Posidonius' theory of the dependence of national temperaments on emotions which are specific to a given area

⁴⁸ We should bear in mind the following difference: the Epicurean words are meaningless beyond the things they refer to, while Plato's have their own meaning which corresponds to the features of the *nominata*. I would not rule out the possibility that Epicurus himself used an explanation like that of *On Airs*, but only if he also supposed some influence of climate on differences of human phonetics, which is not certain.

(see above) made it possible for him to account for differences in languages along the lines of Epicurus' theory. Of course, contrary to Epicurus, the emotion-dependent elements of language in Posidonius were only the material from which the imposers of words created the further etymologically appropriate words and the further structure of language, along similar lines to Plato's explanation of the differences between languages.⁴⁹

There is a passage in Vitruvius which possibly, but not certainly, goes back to Posidonius (Vitr. 6.1.3–12 = *FGrH* 87 F 121 = fr. 71 Theiler).⁵⁰ It gives an idea of what sort of providence is at work in the different kinds of physical constitution and different characters in various geographical zones: the main cause of differentiation is the proximity of a region to the sun, and the quantity of warmth and moisture which results; the differences of physical constitution and temperament which are produced by these factors fit the environment in which the nations live: thus the north produces larger and stronger bodies, with a large amount of blood, light skin and eye-colour, which are appropriate for war but badly adapted to the heat and fevers of the south; and, vice versa, the people in the south, stunted, with a small amount of blood, dark-skinned and dark-eyed, are

⁴⁹ There is also one additional aspect of Epicurus' theory which could be helpful for Posidonius. Plato's linguistic naturalism is of the essentialist kind – the appropriate words, which should correspond to the essential features of things, are compressed definitions, and the sounds into which these words can be resolved are imitations of the features of named things. The aporia at the end of the *Cratylus* shows that the wise name-givers should grasp these features without words in order to implement this knowledge into sounds; but this either makes the words redundant for knowledge, or makes doubtful the existence of such sages. The Stoic view of language, although admitting the role of rationality in the creation of words, is a far cry from this radical intellectualism. Although very different from Epicurus' theory, is it nevertheless empirical in its operations, as Stoic epistemology is. The acquisition of concepts in the Stoic theory is a rational process, not a perceptual one (which, on the contrary, Epicurus' is); it has, nevertheless, a thoroughly empirical character, and is remarkably close to Epicurus' theory in understanding this process as a gradual accretion of perceptual impressions. Also, according to the orthodox Stoic theory, speech is related to the *phantasiai* of things, not to the things themselves and their qualities (Diog. Laert. 7.49 = *SVF* 2.52; see also Diog. Laert. 7.63 = Sext. Emp. *Math.* 8.70), see Long 1971b: 82–4. On the evidence we possess, this connection is attested only for the existing language in the Stoic theory, but according to Epicurus the *phantasiai*, which were accompanied by the emotions, evoked the sounds (future words) from the first human beings; the *phantasiai* thus serve as psychological intermediaries between things and words. I would cautiously suppose that Posidonius, who preserved the basic Stoic dogma that *phantasiai* have simultaneously a perceptual and an intellectual character, could employ to his advantage the role Epicurus assigns to *phantasiai* in word formation in his own adaptation of Plato's name-givers: the *phantasiai*, which are specific to every nation, are the most probable contributors to the elementary matter of language, i.e. of the 'first', rudimentary words out of which the name-givers go on to compose further words.

⁵⁰ The name of Posidonius is not adduced (for this reason this passage is not included in Edelstein–Kidd), but the ascription is considered possible by Trüdingen 1918: 122; cf. Kidd 1988: 272, who does not deny 'echoes' of Posidonius' doctrine; against Posidonius as the source for Vitr. 6.1 see Ferrary 2014: 382–94.

not brave in war but are very hardy as concerns heat and fevers (Vitr. 6.1.3–4). This corresponds broadly to what Posidonius could have in view, and in this context the effects of climate on human phonetics also appear (6.1.5–8). They can be reduced, according to Vitruvius, to the same two causes – warmth and moisture, with the nations who live in the south producing high-pitched sounds, and those who live in moist regions producing deep sounds (*ita et hominum corpora uno genere figurationis et una mundi coniunctione concepta alia propter regionis ardorem acutum spiritum aeris expriment tactu, alia propter umoris abundantiam grauissimas effundunt sonorum qualitates* (6.1.8)). The idea might be related to Posidonius' theory, but in any case it does not shed light on the crucial point, namely the differences between languages as concerns lexica.

K. Reinhardt inferred from this passage, combining it with Str. 2.3.7 and Manil. 4.731, that according to Posidonius different languages developed from the original unity just as the different physical constitutions and psychic types did.⁵¹ It is not entirely clear what he had in view, but Posidonius' theory certainly does not envisage the original unity of all languages. Strabo maintains the dependence of the formation of languages on climate,⁵² and Vitruvius (6.1.8) stresses that the physical constitutions of human nations formed under the same constellations, i.e. simultaneously, at the time of the first origin of humankind, differ nevertheless in accordance with climatic influences. It is unlikely that the account he followed would have omitted the important point that initially all these nations were born in the same place; and only this, according to the principle stated here, would make them have the same initial language. Rather, Posidonius' theory, like that of Epicurus, entails the principal identity of words for the same things in the localities which are close to one another, and growing differences between the words for the same things in accordance with local differences.

There is an interesting passage in Dio Chrysostom's *Olympic Oration* (12.27–9 von Arnim = fr. 368 Theiler) on a certainly Stoic teaching about the origin of culture and language which can with some plausibility be ascribed to Posidonius.⁵³ It is part of an account of the origin of human

⁵¹ Reinhardt 1953: 680–1. He was followed by Spoerri 1959: 140 n. 27.

⁵² There is no explicit idea that singular languages, when they are divided because of migrations, are differentiated due to geographic differences, although it cannot be ruled out. The evidence we have (Str. 16.4.27) points only to differentiation in self-designation of the parts of the formerly single nation, and this implies the differentiation of languages themselves; but the reason for this is not stated openly.

⁵³ See Binder 1905: 27–31, and, more cautiously, Dragona-Monachou 1976: 29–30 in favour of similarity to Posidonius' teaching. The credentials of Posidonius' authorship increase if, as I think is

culture, which serves as a proof that the first people had to come inevitably to the idea of the divine providence. The beauty of human speech, which they must have perceived, is testimony to this providential care. Dio mentions, on the one hand, the pleasure and clearness of sounds uttered by humans, and, on the other, the clearness and epistemic value of said sounds, which was recognized when the people assigned them to things. After that, the people became able to receive from one another the memories and the apprehensions of endless things (12.28).⁵⁴ A remarkable aspect of this theory is that it does not imply that the initial sounds were confused or unarticulated, as is claimed in most theories of language evolution. In this regard, it reminds us of the Epicurean theory, in which there is no stage of confused sounds which makes the invention of artificial articulation inevitable; the sounds become immediately related to things, as they are uttered spontaneously as emotional responses to them.⁵⁵ Of course the teleological tint of Dio's theory – the peculiar beauty of natural human sounds – is alien to the Epicurean theory. Just this aspect of Dio's theory would accord with Posidonius' view of the influence of environment on the initial 'matter' of language, because according to him, it is not eliminated by any artificial improvements.

The assigning of words to things in Dio's theory suggests a theory of imposition of words onto things, as opposed to the naturalism of the Epicurean type, and we can take this as additional support for the idea that the Stoic theory was similar to Plato's imposition of names, rather than to Epicurus' spontaneous process of uttering words. But Dio's theory depicts the creation of language as a collective process, rather than as an invention of the wise imposers of names. There is no evidence for the method of imposition according to the orthodox Stoic view, and the *Cratylus*, as has been noticed, avoids any detailed description of imposition. If Dio's theory bears on Posidonius' theory, this collective process would make sense as a response to the Epicurean attack against the earlier theory of the 'imposer' of names (most probably, against the one developed in the *Cratylus*),

the case, the Stoics before him did not elaborate their views on the origin of culture in a detailed form; but this can be a circular argument.

⁵⁴ ὄρωντες καὶ φωνᾶς ἀκούοντες παντοδαπὰς ἀνέμων τε καὶ ὕλης καὶ ποταμῶν καὶ θαλάττης, ἔτι δὲ ζῶων ἡμέρων καὶ ἀγρίων, αὐτοὶ τε φθόγγων ἥδιστον καὶ σαφέστατον ἰέντες καὶ ἀγαπῶντες τῆς ἀνθρωπίνης φωνῆς τὸ γαῦρον καὶ ἐπιστήμον, ἐπιθέμενοι σύμβολα τοῖς εἰς αἴσθησιν ἀφικνουμένοις, ὡς πᾶν τὸ νοηθὲν ὀνομάζειν καὶ δηλοῦν, εὐμαρῶς ἀπείρων πραγμάτων [καὶ] μνήμας καὶ ἐπινοίας παραλαμβάνοντες.

⁵⁵ Although I have tried to argue that the Epicurean theory implies the gradual natural articulation of sounds in the course of human historical development, together with the growing refinement of their emotions (see Verlinsky 2005: 87–90).

which proceeds through three arguments: (1) it is incredible that somebody could invent imposition without seeing other people communicating between themselves, and thus not understanding the utility of non-invented language; (2) it would have been impossible to teach words to other people, who would not understand their utility; (3) it would have been impossible for a hypothetical inventor to collect people together to teach them the language, before the language had been invented.⁵⁶ Dio's theory is immune to these arguments: it depicts the creation of language as a rational but collective process: it is not an invention of a single person, but rather starts, without external impulse, in the whole of humankind. This does not rule out the role of outstanding individuals (Posidonius' sages) in the creation of meaningful words attached to things, but their activity corresponds to the need of the whole of humankind.

Epicurus' theory also includes a second stage (*Ep. Hdt.* 76) – that of imposition. It does not change the natural correspondence of words to things, but only makes communication more convenient, and it is tempting to think that Epicurus has in mind some unification of words which had already been related to things through spontaneous utterances (see Verlinsky 2005: 71–7). The latter point is debatable, but the persistence of the initial natural words and their links to the objects they designate is beyond doubt. Now, it is not necessary to treat the impositions in Dio as radically different from the impositions of Epicurus' second stage. We cannot say exactly how Dio understands this process, but he certainly does not have in view that next to the beautiful and pleasant initial sounds, the new words are created artificially as different from the earlier ones; rather they can be understood as rational linguistic signs composed of naturally arising phonetic elements (the Stoic *stoicheia*).⁵⁷

Dio's piece seems to give the most explicit and detailed version of what the Stoic theory of the imposition of names might have been, given their stress on the rationality of humankind (duly reflected in the original

⁵⁶ The arguments are cited by Lucretius (5.1041–55) and Diogenes of Oinoanda (fr. 12 Smith) in very similar and complementary accounts which most probably draw on Epicurus; there is the additional testimony of Sextus Empiricus that similar arguments were used against the atheistic idea of the invention of religion which, as we know, was criticized by Epicurus in *On Nature*, Book 12, devoted to the origin of culture: see Kleve 1963 and further Verlinsky 1998.

⁵⁷ Even this process of the assigning of words to things is not entirely alien to Epicurus' theory, as Lucretius' words suggest (*at uarios linguae sonitus natura subegit | mittere et utilitas expressit nomina rerum*, 5.1028–9), where the second half probably points to the process of using sounds for designating objects, which is intermediate between the emission of spontaneous sounds and the rational stage of imposition, which itself serves as a kind of regulation of the connections between words and things which arose spontaneously; see Verlinsky 2005: 83–6.

language), their insistence on imposition, and their emphasis on the imitative abilities of human language. At the same time, it is unlikely that such a view was developed by the earlier Stoics, given their lack of interest in speculating on the origin of human culture, and the Posidonian provenance seems to be more credible granted his detailed reasoning on this subject, including on the origin of language. Dio's theory, without explicitly mentioning the problem, certainly implies the natural origins of different languages, in accordance with Posidonius' attested view.

Of course it cannot be proved definitely that Dio depends on Posidonius and that his theory of language is influenced by Epicurus. However, I would maintain that Dio's reasoning, for which some have proposed Posidonian provenance on other grounds, shows the specific Posidonian interest in the problems of the origin of culture and language which is not attested for the other Stoics of importance. Equally, the revisionist appropriation of the Epicurean ideas which this passage shows is in accord with Posidonius' *modus actionis* in the creation of his alternative theory of the origin of language and culture.

To summarize, in spite of the elusiveness of Posidonius' views on the origin of language, it is certain that its main and innovative feature was the attempt to explain the differences of languages along naturalist lines, for which he probably creatively used and reformed the analogous attempts of Plato and Epicurus. For many reasons, most of all because of the unpopularity of Posidonius' scientific approach in the later Stoa and the growing orthodoxy, his new doctrines in this field did not attract much attention in further philosophical debates (the result of my paper is that we have even less evidence for his views than it is usually assumed). Still, Posidonius' idea of the climatic influences upon differences between languages via prevailing psychological dispositions is a remarkable attempt in the history of linguistic naturalism which anticipates similar theories in modern times. As for the history of ancient naturalism, this part of his teaching shows once more a pervasive influence of the *textus classicus* in this field, Plato's *Cratylus*. I have not attempted to investigate Posidonius' influence on Cicero and Varro in the question of the imposition of names – this is a different, and difficult, task which may promise a better understanding of the relationships between their respective ideas, even in the event of a negative result.